Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for diagnosing operation of an electric motor, comprising:

determining a first shaft position using a sensorless control system;

determining a second shaft position using a position sensor; and

evaluating operation of said electric motor based at least in part on a comparison of said first shaft position to said second shaft position;

transmitting a modified shaft position to a torque controller from a position estimator based on said evaluation of said electric motor;

transmitting a voltage command from said torque controller to an inverter based at least in part on said modified shaft position unless the evaluation indicates inoperability of said position estimator, said torque controller calculating and transmitting said voltage command based on using the sensorless control system during inoperability of said position estimator.

2. (Original) The method according to claim 1, further comprising evaluating operation of said sensorless control scheme based on said second shaft position.

3. (Original) The method according to claim 1, further comprising evaluating operation of said position sensor based on said first shaft position.

4. (Canceled)

5. (Canceled)

6. (Withdrawn) A method for controlling an electric motor, comprising:

determining an electric motor rotational speed;

operating said electric motor using a sensorless control system if said electric motor rotational speed is above a predetermined threshold; and

operating said electric motor using a sensor based control system if said electric motor rotational speed is below said predetermined threshold.

7. (Withdrawn) The method according to claim 6, further comprising correcting said sensorless control system with said sensor based control system.

8. (Withdrawn) The method according to claim 6, further comprising correcting said sensor based control system with said sensorless control system.

9. (Withdrawn) The method of claim 6, wherein the step of operating said electric motor using a sensorless control system if said electric motor rotational speed is above a predetermined threshold comprises the steps of:

determining motor speed and position from a plurality of phase current and phase voltage signals;

determining an inverter voltage command from said motor speed and position; and

determining the plurality of phase current and phase voltage signals from said inverter voltage command.

10. (Withdrawn) The method of claim 9, further comprising:

determining motor speed and position from a position sensor; and

correcting said phase current and phase voltage signal determined motor speed and position with said position sensor determined motor speed and position.

11. (Withdrawn) The method of claim 6, wherein the step of operating said electric motor using a sensor based control system if said electric motor rotational speed is below said predetermined threshold step comprises the steps of:

determining motor speed and position from a position sensor;

determining an inverter voltage command from said motor speed and position; and

determining a plurality of phase current and phase voltage signals from said inverter voltage command.

12. (Withdrawn) The method of claim 11, further comprising:

determining motor speed and position from a plurality of phase current and phase voltage signals; and

correcting said position sensor determined motor speed and position with said phase current and phase voltage signal determined motor speed and position.

13. (Withdrawn) The method of claim 6, wherein said predetermined threshold is about 50 rpm.

14. (Withdrawn) The method of claim 6, wherein said predetermined threshold is in the range of about 10 rpm to about 100 rpm.

15. (Withdrawn) A system to control an electric motor comprising:

an inverter operatively connected to said electric motor;

a position estimator operatively connected to said electric motor and said inverter;

a torque controller operatively connected to said position estimator and said inverter;

a position sensor operatively connected to said electric motor and said position estimator;

a processor for determining a first electric motor shaft position based on an output from said inverter;

said processor ordered to determine a second electric motor shaft position based on an output from said position sensor; and

said processor programmed to correct said first electric motor shaft position by using data related to said second electric motor shaft position.

16. (Withdrawn) The system according to claim 15 wherein said processor is programmed to correct said second electric motor shaft position using data related to said first electric motor shaft position.

17. (Withdrawn) The system according to claim 15, wherein said position sensor is a low resolution position sensor.

18. (Withdrawn) The system according to claim 15, wherein said position sensor is an engine crankshaft position sensor.

19. (Withdrawn) The system according to claim 15, wherein said position sensor is an engine camshaft position sensor.

20. (Withdrawn) The system according to claim 15, wherein said position sensor is a transmission sensor.

21. (Withdrawn) An vehicle comprising:

an electric motor;

an inverter operatively connected to said motor;

a position estimator operatively connected to said motor and said inverter;

a torque controller operatively connected to said position estimator and said inverter;

a position sensor operatively connected to said motor and said position estimator;

means for determining a first electric motor shaft position based on an output from said inverter;

means for determining a second electric motor shaft position based on an output from said position sensor; and

means for correcting said first electric motor shaft position by said second electric motor shaft position output.

22. (Withdrawn) The vehicle according to claim 21, further comprising means for correcting said second electric motor shaft position by said first electric motor shaft position output.

23. (Withdrawn) The vehicle according to claim 21, wherein said position sensor is a low resolution position sensor.

24. (Withdrawn) The vehicle according to claim 21, wherein said position sensor is an engine crankshaft position sensor.

25. (Withdrawn) The vehicle according to claim 21, wherein said position sensor is an engine camshaft position sensor.

26. (Withdrawn) The vehicle according to claim 21, wherein said position sensor is a transmission sensor.

27. (Withdrawn) An article of manufacture for controlling an electric motor, comprising:

a computer readable storage device; and

a control strategy embodied in said computer readable storage device for directing a computer to control the steps of determining an electric motor rotational speed, operating said electric motor using a sensorless control system if said electric motor rotational speed is above a predetermined threshold, and operating said electric motor using a sensor based control system if said electric motor rotational speed is below said predetermined threshold.

28. (Withdrawn) The article of manufacture according to claim 27, wherein said predetermined threshold is about 50 rpm.

29. (Withdrawn) The article of manufacture according to claim 27, wherein said predetermined threshold is in the range of about 10 rpm to about 100 rpm.